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# agricultural SITUATION

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# the crop reporters magazine

U.S. Department of Agriculture Statistical Reporting Service November 1970.



SRS COUNTS THE CHICKENS



The egg came first. Moneywise, at least, that's what the figures of USDA's Statistical Reporting Service show for poultry earnings last year.

Of the \$3.9 billion grossed by poultrymen in 1969, 58 percent came from eggs, 39 percent from broilers, and 3 percent from other chickens, such as culled layers, frying chickens, and breeder roosters.

To inform poultrymen of the supply aspects of their industry, SRS hatches many timely reports. For example, the egg producer, who's wondering whether there's more profit in buying a younger flock or force moulting his layers, can find out how many egg type chicks were hatched in commercial hatcheries the month before. How? He looks in the monthly, SRS Eggs, Chickens, and Turkeys Report, or gets the data from a field office release, or private publication that has picked up the report's figures. The official release tells by State how many eggtype chicks were hatched in the previous month and months.

Eggs, Chickens and Turkeys, newest in the SRS poultry series, was first published January 16 this year. It combined several other SRS reports and included egg production, formerly part of the monthly crop report.

The turkey hatch is also included with the monthly chicken data to get all current hatch data under one cover.

#### LAYERS AND EGGS

Estimating eggs is a problem wrought process because there are so many variables involved. Flock sizes change continually; weather affects the number of eggs hens lay; egg operations come and go out of business.

First, SRS establishes the size of the Nation's laying flock. Every December they inventory all the very large egg producers in each State. In most States, this involves taking a census of flocks of 10,000 and over, although in some of the largest egg-producing States, censuses are only taken for flocks of 20,000 and over. The latest figures indicate that the very large commercial operations control around 55 percent of the Nation's hens and pullets of laying age.

The remaining flocks are sampled on a land area segment basis and by sample mail surveys. The results are statistically expanded to get a total.

The total number of egg-type chickens on farms gets published early every February in the *Livestock and Poultry Inventory*. Figures reflect the January 1 chicken numbers (excluding commercial broilers) and form the benchmarks for monthly estimates of layer flocks for the rest of the year.

During the year, SRS mails questionnaires monthly to poultrymen. A green questionnaire goes to commercial egg producers; the remaining farms that produce eggs are covered by the monthly farm report's yellow questionnaire. The data from the two questionnaires form the basis for monthly estimates of layer numbers in Eggs, Chickens and Turkeys Report.

Various other checks and balances are applied to estimates before they see print. Changes are compared to seasonal variations in previous years; hatch data is compared to pullets on hand; slaughter data indicates how many layers have been culled.

Culled layers do not usually enter the market directly as meat. They mostly end up in soup and frozen chicken pies, and in other processed foods. Culled layers earned poultrymen \$111 million in 1969.

Once the number of layers has been estimated, SRS's second step is to find out how many eggs were laid. Responses from mailed surveys also provide the data to obtain the rate of lay.

One question on both forms asks, "Number of eggs produced by your

flock yesterday." SRS adds up the responses, then divides the sum by the number of layers. The quotient equals the rate of lay.

For example, on August 1, 1970, the rate of lay averaged 60.1 eggs per hundred hens, meaning that poultry farms averaged better than an egg every 2 days from each hen.

Multiply the rate of lay, by the number of layers producing, by the number of days in the month, and you arrive at SRS's monthly egg estimate.

#### **BROILERS**

Estimate hardly describes the weekly broiler reports for 22 States—virtual enumeration is the better term.

SRS contacts all commercial hatcheries in these States by phone or by mail once a week. The statistics are then phoned or wired into an SRS tabulating center at Richmond, Va., where the figures for the individual States are totaled, then relayed back to the 22 State offices. These field units then publish the data showing placed broiler chick numbers for the previous 10 weeks.

Last year, the 22 States produced 97 percent of the Nation's broilers. The top 10 States produced over 87 percent of the total.

Through the reports, broiler farmers have extremely accurate weekly figures on how many broiler chicks were placed on feed and how many broiler eggs were set out to hatch. Supplies of chicks and marketable birds are known, once the death rate has been subtracted.

Each March SRS publishes data for the foregoing year by weekly totals in Commercial Broilers.

In April, SRS publishes income figures for the preceding 2 years in Chickens and Eggs, Including Broiler Production. This report summarizes the whole chicken business: eggs, layers, broilers, and gross incomes. It's also the place to find broiler productions for the 28 States, not included in the weekly reports.



# EGGS IN THE SEVENTIES

Producing an egg used to be left pretty much to the chicken; in the 1970's it's likely to be the programed product of an industrial complex.

George Rogers of the Economic Research Service sees egg firms getting larger and fewer. Rogers also feels they'll supply more of their own needs, develop processing operations, and maintain marketing facilities all under a single management.

Independent operators who remain have to become big enough to perform several of these operations, or else retain some of the shrinking local market.

Also coming on strong in the '70's will be specialization—but a different type than most poultry folk have seen so far. The new approach will be a specialty operation within a coordinated egg producing complex.

#### **EGG PRICING**

Egg pricing, which reached a crisis in the 1960's, should improve gradually

and by the end of the decade be greatly modified. Much will be done to reduce the problems caused by short-run price changes. For example, the growing use of eggs for manufacturing and in processed products will help stabilize prices. And because there will be larger egg producing firms, brand name eggs with set retail prices will be more familiar.

An as-yet-untried sales technique would be eggs-by-the-pound. Sold this way, eggs, even at recent high prices, would be a good value.

Rogers says if the industry applies available technology to improve efficiencies, egg prices should remain favorable in the '70's, compared with other food items.

#### EGG USE

Expanding egg production in the present decade may not match population growth, and per capita use may level off at less than an egg a day.

We'll be finding new ways to eat eggs. Today, we use 90 percent of all eggs in shell form, but that'll drop to about two-thirds before 1980. Manufactured products will take 15 percent of all eggs, compared with the present 10 percent. Egg use in prepared and convenience foods will increase.

But even to hold the projected 300 eggs per year per person, producers are going to have to make some positive

efforts.

#### EGG PRODUCTION

In the 1970's, many flocks once considered medium or large will seem relatively small. Small commercial flocks will disappear, even in the Midwest where flocks under 10,000 birds still account for a larger share of production than elsewhere. Much of the expansion will be possible because of the growing number of birds one man will be able to handle alone. Cage production, already well established, will displace floor production.

Also coming in for some changes will be the handling of byproducts. With new kinds of equipment, former waste products will be easily converted to usable commodities. For instance, scientists have found that chicken feathers and offal can be made into

feed, and that chicken manure is a first-rate source of nitrogen for fertilizer.

## CHANGING SCENE

There may be some shifts in where eggs are produced. The South is expected to show some further growth, but recent downtrends in other areas should slow and stabilize.

Surprisingly, much of the shift will be within regions and caused by pressures outside the egg industry. Local zoning rules, tax problems, and intensified land planning will push poultry farms into open farmland and undeveloped areas.

# EGG PRODUCERS AND THE CONSUMER

Nationwide Federal-State standards for egg sizes, grades, and quality will probably come shortly. Mandatory inspections for eggs are also on the way. There may also be changes in eggs' nutritional quality. Technology may be able to add even more iron to eggs, while reducing cholesterol. During the '70's, the egg industry will be doing a lot to tailor its product to consumer wants and needs.

# **BROILERS IN THE SEVENTIES**

Broiler production is projected to continue on an upward trend during the 1970's, but at a slower rate than during the 1960's. Broiler numbers by 1980 may total about 1 billion more than last year's 2.8 billion.

The average live weight has increased at an average of 1 percent a year during the past decade. It was 3.6 pounds in 1969.

Average weight may stabilize at about the present level, particularly as the chicken carryout business continues to grow. Estimates indicate that up to 15 percent of the broilers pro-

duced are currently marketed through carryouts. This market will probably continue to grow, but perhaps at a slower pace than in recent years.

Carryouts require broilers in a narrow range:  $2\frac{1}{2}$  to  $2\frac{3}{4}$  pounds—the ready-to-cook weight. As more broilers move through these chains, efforts will be made to hold weights within acceptable limits.

If weights are maintained near current levels, output of ready-to-cook broiler meat may total around 10 billion pounds by 1980.

To give our readers a clearer picture of U.S. farming in all its modern diversity, Agricultural Situation presents the eighth in a series of farm photo-essays. These farms have been selected by USDA farm management specialists as typical of good commercial farm businesses in various production areas.

They are not average farms . . . they are definitely above average. But they are not showplaces either. They represent the modern farm businesses that can be readily found in their production areas, and which produce the bulk of America's farm products today.

# **PORTRAIT**

OF A

**FARM** 

Buford Kesler of Athens, Ga., has a highly specialized farm. He and his son produce 375,000 broiler chickens a year. The broilers are produced under contract for a local processor. The Keslers provide the buildings, equipment, and management. The processor provides the chicks, the feed, and a market for the finished broilers.

Keslers have four modern broiler houses like this one, which houses 13,000 birds. The birds are fed and







watered automatically. Preventive medicines alleviate disease problems. Keslers also have three smaller, older houses where the feeding is done by hand. They produce five batches of birds per year. Plans are being made to automate the two smaller houses.

The Keslers' operation is typical of the modern, highly efficient broiler operations in the United States, made possible by better disease control, improved strains of chickens, and highenergy feeds.

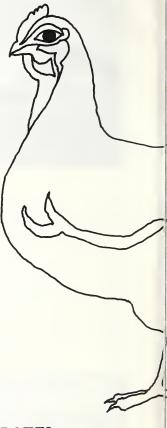
In 1939, it took 14 weeks and 13½ pounds of feed to produce a 3-pound broiler. Today, Kesler and other growers do it in 8 weeks with 6¾ pounds of feed. Labor efficiency in the broiler industry has increased 225 percent in 10 years. This has helped make chickens a good buy for consumers—who have responded by buying more

chicken. Production went up from 1.6 billion pounds in 1957–59 to 9.3 billion pounds in 1968, while gross incomes to broiler producers more than doubled.

The Keslers get most of their income from the highly concentrated poultry operation. Most of their 200 acres of farmland is permanent pasture, however, where they run beef cows and produce about 100 feeder calves a year. They lease about 300 acres of land, producing grain and hay for cattle feed.

They provide all their own labor for both operations.

The shortage of hired labor prompted the Keslers to move into broilers and beef, instead of the cotton that was once the farm's main cash crop.



# IS THE BROILER CONTRACT OUT OF DATE?

Broiler contracts were the big thing in the Sixties, part and parcel of the move to integrate the U.S. poultry industry.

But as that integration proceeds still further during the Seventies, some broiler firms are discarding contracts in favor of company-owned farms which they see as less troublesome, more efficient.

Are company-owned broiler operations really better?

Is company labor truly more efficient?

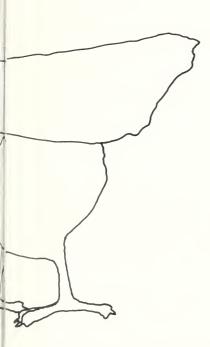
There's no answer for every situation, says Ewell P. Roy, agricultural economist at Louisiana State University. He's studied the pros and cons of both production setups. Everything depends on the individual firm—and the individual producer.

With company ownership goes, of course, much tighter control over broiler production. Many firms see this as highly desirable because they've been chafing that they bear most of the risks but don't have enough authority.

But operating a wholly integrated operation from breeder flocks, hatcheries, broiler growing, processing, and so forth, is not without its own headaches.

Where company management is not strong, adding a broiler farm to other company businesses may be "the straw that cracks the egg shell."

Companies often go into broiler production themselves with the aim of saving money. Usually they hope to achieve better labor efficiency and flock management with company labor.



But savings aren't always as great as management anticipates.

Any broiler firm building its own facilities nowadays is going to have to invest considerably more per square foot in housing and equipment than contract growers did a while back.

And company labor isn't necessarily more efficient than contract growers. These matters still lie in individual performances. Many contract growers are time-tested and efficient.

Company labor, too, often gets fringe benefits (hospitalization, paid vacations, etc.) that don't usually go to contract growers.

The Seventies will probably see both company-owned and contract farms existing side by side. Many broiler firms may find it convenient to have their poultry coming from both types

of farms, each serving as a yardstick to measure the other's efficiency.

# CHICKEN BREAK

Let your chickens take a break every now and then—and they'll pay you back with more and better eggs.

Cornell University scientists believe the rigors of mass production place a tremendous strain on today's laying hens—who can produce more than 250 eggs a year compared with the turn-ofthe-century chicken's dozen. But any additional stress—cold, heat, or a mild infection—can hurt egg quantity as well as quality.

Poor eggshells, for example, cost poultrymen and processors many millions of dollars annually. The Cornell scientists think an occasional relaxation period would help maintain top performance and egg quality.

# WHO WORKS IN AGRIBUSINESS?

The "agribusiness bunch," who is it? Recently, 654 workers in upstate New York were asked about themselves and their association with agriculture. All worked on farms or for companies supplying farmers or handling and processing farm products.

Here are some of the survey's salient

findings:

The mainstay of agribusiness naturally is the farm operator, who helps make this sector one of the most heavily self-employed in the country. The survey revealed that one out of four agribusiness workers were self-employed, compared with one out of seven in the general U.S. work force.

Median age of the agribusiness worker is 41.5, compared with 40.4 in the general work force. And four out of five workers are men, compared with two out of three among other workers.

Those surveyed generally had a stable living and work situation. For example, eight out of 10 in the sample were born in the State, more than half on farms. And most of them worked near where they were born, although only 36 percent on farms.

Including farm operators boosted job longevity for all agribusiness workers to a median of 14 years. The median tenure was 6 years for those in the

processing and supply sectors.

A median of 12.2 years schooling put agriworkers' education a cut above the general U.S. work force, which had 11.1 years of schooling for men, 12.1 years for women.

# CANADIAN AGRICULTURE

The throes of change in Canada's agriculture are similar in many respects to those on the U.S. farm scene.

Canada's farm population shrinks every year. In 1961, it totaled 2.13 million, 11.7 percent of the total population. By 1966—the last Canadian census—1.96 million still lived on farms, 9.8 percent of the population.

Fewer but larger farms is the trend in Canada. When the '60's opened, Canada had around 481,000 farms; by 1966 there were nearer 431,000. Land in farms increased from about 172,500,000 acres to over 174,100,000 acres. Average farm size rose from 359 to 404 acres.

Between 1959 and 1969, the value of Canadian agricultural production grew from \$2.5 to \$3.4 billion.

While cash receipts from livestock still exceed those from crops, most of the upswing was from the crop sector. (These values are constant 1957–59 \$U.S.)

Cash receipts from crops totaled about \$1 billion in 1969 and \$1.5 billion 10 years later. Livestock value, with

recent strength from cattle and calves, advanced from \$1.8 to \$1.9 billion in the decade. Since 1961, wheat has accounted for more than half the value of all crops marketed.

Wheat and wheat flour dominated Canadian agricultural exports during the 1960's, accounting for between 43 and 65 percent of the total. No other single agricultural commodity amounted to even 5 percent of the total. Canada's biggest wheat customers during the 1960's included U.S.S.R., Mainland China, Japan, United Kingdom, and the EEC.

Total agricultural exports fluctuated from \$1 billion in 1959, to \$1.7 billion in 1966, to \$1.1 billion in 1969.

Agricultural imports grew from less than \$800 million to slightly more than \$1 billion between 1959 and 1969. U.S. agricultural exports to Canada have averaged close to \$500 million in recent years—more than twice the value of our imports from Canada. The United States has been Canada's No. 1 source of corn, oilseed cake and meal, soybean, fruits, and vegetables.

# SALAD OILS

Take crisp greens, a sprinkle of spices, a few croutons, slice of cucumber, tomato wedge, and toss lightly with your favorite salad dressing. That pleasant opening to a good meal has been one way Americans have managed to increase their intake of salad and cooking oils almost three-fifths since 1947.

In 1968, U.S. per capita consumption of fats eaten in cooking and salad oils, plus shortenings, was close to 30

pounds.

We whetted our appetites with 72 percent more shortening in 1968 than in 1947 and 59 percent more salad and cooking oils than in 1959. The greater use of unsaturated fats and larger quantities of vegetable shortening in commercial food preparation are significant reasons for the increases.

Our penchant for fats and oils in contemporary cuisine carries quite a clout for agriculture. Salad and cooking oils and shortening are major outlets for animal fats and vegetable oils. especially soybean oil. And the market

is growing.

In a recent year, 61 percent of the total U.S. soybean oil output wound up in the kitchen—either private or commercial. The same thing happened to 72 percent of the cottonseed oil; 60 percent of the corn oil; 89 percent of the peanut oil; 21 percent of the safflower oil; and 11 percent of the coconut oil. There's more. In 1968, 30 percent of the lard went for shortening. as did 90 percent of the edible beef fat.

Soybean oil accounts for over half the fats used in shortening and more than two-thirds of the vegetable oils. Almost two-thirds of the oils in salad and cooking oils were from soybeans. Cottonseed oil, fast losing out to soybean oil, is responsible for about onefifth of the oils in salad and cooking oils.

## ALFALFA SEED

Hawkeyed readers of our June Agricultural Situation may have spotted an error in the California Firsts table which appeared on

The Golden State produced only 43.6 percent of the Nation's alfalfa seed in 1968 but 99.9 per-

cent of the almonds.

# HAY-STE MAKES WASTE

Turning new mown hay often after it's cut will quicken drying time—but it may cut down on the hay's nutritional value.

Two agricultural engineers at the University of Wisconsin recently tested various methods of speeding up field drying of hav. At the same time, they measured the amount of leaf loss that occurred. Leaves are the most nutri-

tious part of hay.

Roll-type hay crushers appeared to be the most successful speed driers of both alfalfa and sorghum-sudan grass, according to the engineers. The machine crushes the stem which is high in moisture without disturbing the leaves which are the most subject to loss in handling.

Flail-type mowers and rotary tedders, while they made for faster drying.

caused a fairly heavy leaf loss.

Windrowing hav at the time it was cut and crushed did not speed up drying time appreciably over that for hav left in the swath with no conditioning at all. But the crushing and windrowing did make for a higher leaf loss. Consequently, the engineers ruled out windrowing hay at the time of crushing, at least under Wisconsin conditions. However, the practice might be useful in delaying the drying of forage to be used as wilted grass silage.



Digested from outlook reports of the Economic Research Service. Forecasts based on information available through October 1, 1970

SEED CORN . . . Companies who normally handle about 80% of our seed corn estimate that they will have over 903 million pounds available for planting in 1971. According to the Crop Reporting Board, the estimate, based on information from major seed companies, represents the seed corn carryover on June 30, 1970, plus expected 1970 production and planned 1970/71 winter seed output. The actual quantity of seed available will depend on the weather for the rest of this season and on winter production. Of the estimated 903 million pounds, around 42% is likely to be T-Cytoplasm, the kind that proved highly susceptible to corn blight during 1970. Another 21% will probably be normal or Hand Detasseled, and the remaining 37%, blend seed. Blend seed is produced from a combination of N-Cytoplasm and T-Cytoplasm.

MILK output per cow averaged 782 pounds during August, up 2.4% from August 1969. Production may rise at a steeper rate during the rest of the year. In 1968 and 1969, milk per cow rose an average 2.7% in the second half.

MILK COWS numbered 12.4 million in August, down 1.6% from a year earlier. The rate of decline slowed during the past 4 years.

**SHOULD COW NUMBERS** continue to decline at the current rate, this year's milk production would total around 116.5 billion pounds, some 300 million pounds above 1969's.

**CANNED NONCITRUS FRUIT SUPPLIES** during the 1969/70 season ran about 10% ahead of a year earlier, reflecting last year's large crops. Fruits with above average canned stocks include applesauce, apricots, cherries, figs, fruit cocktail, fruit salad, mixed fruits, peaches, pears, and purple plums.

**COTTON DISAPPEARANCE**—mill use plus exports—is more than likely to exceed 11 million bales during 1970/71, compared with last season's 10.8 million bales. August 1971 prospective carryover stocks should fall below the 5¾ million bales on hand this August 1. Our export outlook looks sharp for next year in view of larger cotton use and smaller supplies in Free World countries.

MAN-MADE FIBER production surpassed cotton output on a worldwide basis for the first time in 1969/70. Production of manmade fibers totaled 18.3 billion pounds, about 10% above the previous year. That's equal to 56.5 million bales of cotton, and world cotton production stood at 51.25 million bales during 1969/70. Although gain in man-made fiber output was greater abroad, the United States still produced one-third of the world's total.

**TURKEY PRICES** during the main marketing period may average moderately below year-earlier levels due to larger turkey and broiler supplies and a substantial increase in pork production.

**BROILERS** . . . Production levels will stay above 1969 into fall, but by a narrowing margin and output is expected to drop below a year earlier in the closing months of 1970. Broiler prices, however, will be under pressure from large broiler supplies and increased pork supplies for the rest of 1970.

EGGS . . . There were 80 million pullets 3 months old or older not yet laying—11 million more than a year earlier. About 4.3 million more egg-type pullets were hatched during May—June 1970 than a year earlier. Thus, the laying flock in coming months likely will increase and average moderately larger than in 1969. The rate of lay is expected to exceed last year's this fall due to a younger flock in prospect. Increased fall egg production is expected to hold egg prices below last fall's relatively high 48.1 cents per dozen.

**FOOD SPENDING** . . . For all of 1970, expenditures for food are likely to be up about 7%, compared with last year's rise of 5.7%.

**RETAIL FOOD PRICES** may decline more than seasonally this fall, if food supplies increase as expected, and inflationary pressures ease. Due to sharp runups in late 1969 and early 1970, retail food prices this year may average about 5% above last year.

**FOOD STORE PRICES** will increase much less than away-from-home eating prices, which through July 1970 ran nearly 8% above 1969 rates.

**U.S. AGRICULTURAL EXPORTS** from July 1969 through June 1970 topped the previous fiscal year by 16%. Record commercial sales pushed the 1969/70 figure past the \$6.6 billion mark, well above the preceding year's \$5.7 billion and the third best showing to date.

**EXPORTS TO JAPAN** reached the \$1.1 billion level for agricultural products—the first time a single market has taken more than \$1 billion worth of U.S. farm products in a year. Heading the list of Japanese imports were soybeans, feed grains, wheat, and tobacco.

**U.S. AGRICULTURAL IMPORTS** during 1969/70 were worth \$5.5 billion, 11% above the previous year. Coffee, valued at \$1.1 billion led the list of commodities imported; cane sugar followed, \$686 million worth; beef and yeal were third, \$646 million.

# STATISTICAL BAROMETER

| Item   | 1957-59<br>average       | 1969   | 1970—latest<br>data available |   |
|--|--------------------------|--|-------------------------------|---|
| Farm output, total<br>Crops<br>Livestock<br>Prices received by farmers                                   | 100<br>100<br>100<br>100 | 121<br>121<br>118<br>114                     | 122<br>119<br>122<br>114      | September<br>September<br>September<br>August |
| Prices paid by farmers, interest, taxes, wage rates Parity ratio (1910–14=100) Consumer price index, all | 100                      | 127<br>74                                    | 133<br>71                     | August<br>August                              |
| items Food Disposable personal   | 100<br>100               | 128<br>126                                   | 136<br>133.5                  | August<br>August                              |
| income (\$ bil.)   | 321.5                    | 631.6  | 684.0                         | (3)   |
| Expenditures for food<br>(\$ bil.)<br>Share of income spent for  | 66.3                     | 105.3  | 113.0                         | (3)   |
| food (percent) Farm food market basket:  | 20.6                     | 16.7   | 16.5                          | (3)   |
| Retail cost (\$) Farm value (\$) Farmers' share of   | 983<br>388               | 1,173<br>477                                 | 1,237<br>475                  | August<br>August                              |
| retail cost (percent)  | 39                       | 41   | 38                            | August  |
| Realized gross farm income (\$ bil.) Production expenses (\$ bil.) Realized net farm income              | 36.5<br>24.9             | 54.6<br>38.4                                 | 56.2<br>40.1                  | (3)<br>(3)                                    |
| (\$ bil.) Agricultural exports (\$ bil.) Agricultural imports (\$ bil.)                                  | 11.6<br>4.2<br>3.9       | 16.2<br><sup>2</sup> 6.6<br><sup>2</sup> 5.5 | 16.1<br>.5<br>.5              | (³)<br>August<br>August                       |

<sup>&</sup>lt;sup>1</sup> Average quantities per family and single person household bought by wage and clerical workers 1960–61 based on Bureau of Labor Statistics figures.

gures. 2 July 1, 1969—June 30, 1970. 3 Annual rate, seasonally adjusted second quarter.

# CROPLAND TRENDS

American farmers have abandoned 53.5 million acres of cropland to other uses since World War II. However, they brought in 26.7 million acres of new cropland. Net loss: 26.8 million acres from the 403 million acres of cropland in 1944.

The changing technology of 20thcentury farming seems to be the key to why old acres were retired, while

new ones appeared.

The new cropland is concentrated geographically in very definable areas. In southern Florida, irrigation and drainage combined to create new vegetable acreage and orchards. Moving farther west, clearing and drainage benefited the Mississippi Delta area, creating new land, mostly for soybeans and cotton.

Texas has two new crop areas that have developed over recent decades. At the southern tip, near the Gulf of Mexico, strip irrigation started many vegetable acres, plus some citrus. Irrigation plus hybrid sorghum made the Texas High Plains bloom.

Irrigation also opened acreage in Arizona, California, Washington, Idaho, Colorado, and Kansas.

Dryland farming improvements led to many new winter wheat acres in northern Montana.

Farmers used drainage, clearing, contouring, and leveling to expand cropland acreage throughout the Corn Belt.

While cropland increased mostly in rather limited locations, decreases were found in wide swaths. The main stretch of abandoned acres runs through much of the eastern United States from Mississippi to Maine. Much of the section between Washington, D.C., and Boston went to urbanization, but throughout the whole region acreage simply was no longer agriculturally profitable. This meant fields that were too infertile, small, rough, or isolated.

Georgia, Alabama, South Carolina, and Florida had 10.6 million acres abandoned between 1944 and 1964.

Another large area of retired acres stretches from northeastern Texas, through Oklahoma, into western Arkansas and Missouri. Here, cropland, mostly wheat, has been shifting back to grass since the 1930's, mainly because of moisture shortage.

Much of the land was taken out of farming because of low fertility or because it wasn't adaptable to efficient use of modern equipment. Rising labor costs were also a factor.

Here are some regional totals for cropland shifts from 1944 to 1964:

| Region          | Increase | Decrease      | Net<br>change <sup>1</sup> |
|-----------------|----------|---------------|----------------------------|
|                 |          | Million acres | 3                          |
| Northeast       | 0.1      | 7.0           | — 6.9                      |
| Lake States     | 1.2      | 2.9           | - 1.8                      |
| Corn Belt       | 4.6      | 3.3           | + 1.3                      |
| Northern Plains | 4.7      | 3.5           | + 1.2                      |
| Appalachian     | .1       | 8.1           | - 8.0                      |
| Southeast       | 1.0      | 10.6          | - 9.5                      |
| Delta           | 1.6      | 5.2           | 3.6                        |
| Southern Plains | 2.8      | 9.9           | - 7.1                      |
| Mountain        | 8.0      | 1.5           | +6.4                       |
| Pacific         | 2.6      | 1.4           | + 1.2                      |
| 48 States .     | 26.7     | 53.5          | <b>— 26.8</b>              |

<sup>&</sup>lt;sup>1</sup> Total changes may not add due to rounding.

# AGRICULTURAL SITUATION

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Editor: Geraldine Schumacher

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